Work Order ID 97168

February-14-13 2:52:18 PM Item ID: D2958 Accept \*N900040100\* Setup Start **Revision ID:** Item Name: Window \*4\* **Start Date:** 2/14/13 Start Qty: 4.00 Cust Item ID: Required Date: 2/28/13 Reg'd Otv: 4.00 **Customer:** Reference: Run Process Plan: 415 Date: 13-02-19 Tooling: Approvals: Date: Stop \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Reject Tool # Plan Accept Reject Insp. Work Center ID Description **Run Hours** Qty Qty Code Number Stamp Draw Nbr **Revision Nbr** D2958 Rev E 100 0.00 \*100\* FLOW WATER JET Waterjet 0.00 Memo FLOW CNC Waterjet \*\*\*\*\*\*\*MAKE SURE TO USE WATERJET BRICK\*\*\*\*\*\*\* 110 QC2- Inspect parts off machine FAI/FAIB 0.00 \*110\* Jm13-4-8 QC 0.00 Memo Quality Control 120 QC8- Inspect parts - second check 0.00 \*120\* QC 0.00 Memo Quality Control

NCR: Y	es /	No				WORK ORDER NON-	COI	NFORI\	MANCE / UPDATE				
											QA Closed:	Date	:
Work Orde	er:				<del></del>	<b>DISPOSITION</b> Rework	7		AGAIN Skid-tube Crosstu	_	PARTMENT/	<b>PROCESS</b> Water Jet	Engineering
Part N			<u> </u>	-10-		Scrap Use-as-is Work Order Update		Therm	Machining Small Finishi Large Fab Compos	ab ng	4	d. Eng. Coor. re/Packaging Supplier	Quality Other
NCKI	NO				···	Work Order Opdate	<u>ן</u>		carge rab compos	'' <sup>'</sup>	J		
Root Cause	D	ate	Step	Qty		ption of work order update or Non-conformance	i	Initial nief Eng	Action Description		Sign & Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved								LT CATE	CODY				
Landii	ng Gear					General	AUI	LICATE	JONT				
Lanui	Benderal Central Crust Cuff Heal Insp	tre No ks hed/C s t Trea	Strip in		o/s	Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		- '	on Incomplete ions Incomplete/Unclear nance led		Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
			Bend aves in E	xtrusio	, n	Drawing	-	4	Calibration				

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

February-14-13 2:52:18 PM Item ID: D2958 Accept \*N900040100\* Setup Start **Revision ID:** Item Name: Window Start Date: 2/14/13 Start Oty: 4.00 Cust Item ID: Required Date: 2/28/13 Req'd Qty: 4.00 **Customer:** Reference: Run Process Plan: Date: Tooling: Approvals: Date: Stop QC: \_\_\_\_\_ Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool # Plan Reject Tool ID Accept Reject Insp. Work Center ID **Description** Run Hours Code Qty Qty Number Stamp 130 0.00 THERMOFORMING MACHINE \*130\* Thermoform 0.00 Memo Thermoforming Machine Thermoform as per Dwg D2958 and Folio FTA005Dwg. Rev. Folio Rev. 140 QC2- Inspect parts off machine FAI/FAIB 0.00 \*140\* QC 0.00 Memo Quality Control Check product for scratches mal-formation or any other non conformances. 150 QC8- Inspect parts - second check 0.00 \*150\* QC 0.00 Memo Quality Control

DQA:	Date:	
	<del></del>	

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

									QA Closed:	Date	
Work Orde	r·				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part N					Rework Scrap Use-as-is		Skid-tube Machining noforming	Crosstube Small Fab Finishing	1	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	o				Work Order Update		Large Fab	Composite		Supplier	
Root				Descr	ption of work order update	Initial	Act	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector
Ooc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved											
onapproved 1		<u> </u>	<u>.                                    </u>			AULT CATE	GORY		1	<u> </u>	
Landin	g Gear				General						
	Bending Centre No			o/s	Bend BOM/Route Broken/Damaged	$\vdash$	ion Incomplete		Ovalized Over/Under Part Incorre	ct	Pressure/Forced Temperature/Cure Weld
-  -  -	Crushed/ Cuffs Heat Trea	at			Burrs Contamination Countersink	Mainte		Unclear	Part Lost/M Part Moved Positioned \	Wrong	Wrong Stock Pulled Other
	Inspectio		Tube	.	Cut Too Short	Misrea	a	. L.	Power Loss/	Surge	Tottlei
	Ripples in Torque W		Extrusio	n _	Drill Holes Drawing	<b>⊢</b> ⊣	Calibration				
	Turning S			L	Finish	<b>⊢</b>	Sequence				
	Wave/Tw	ist in Tul	эe	1	Folio	Outside	e Dimensions				

Packaging

February-14-13 2:52:18 PM Item ID: D2958 Accept \*N900040100\* Setup Start **Revision ID:** Item Name: Window **Start Date:** Start Qty: 4.00 2/14/13 **Cust Item ID:** Required Date: 2/28/13 Req'd Qty: 4.00 **Customer:** Reference: Run Process Plan: Date:\_\_\_\_\_ Approvals: Tooling: Date: Stop Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Reject Reject Accept Insp. **Work Center ID** Description **Run Hours** Qty Qty Code Number Stamp 160 0.00 HAND FINISHING THERMOFORMING \*160\* Thermoform 0.00 Memo Thermoforming Machine Water sand and buff to remove scractches as required Wrap in protective film 170 QC5- Inspect part completeness to step on W/O \*170\* QC Memo Quality Control 180 Identify as per dwg & Stock Location: \*120\* Packaging 0.00 Memo

										DQA:	Date:	
NCR: Yes	/ No				WORK ORDER NON-C	ONFO	)RM	ANCE / UP		QA Closed:	Date:	
Work Order:	***************************************				DISPOSITION				AGAINST DE	PARTMENT/		
Part No.					Rework Scrap Use-as-is	Th	M	kid-tube achining oforming	Crosstube Small Fab Finishing		Water Jet d. Eng. Coor. e/Packaging	Engineering Quality Other
NCR No.					Work Order Update			arge Fab	Composite	, , , , , , , , , , , , , , , , , , , ,	Supplier	
Root				Descri	ption of work order update	Initia	əl	Act	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief E	ng	Desc	ription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling			}				ļ					•
Operator												
Material							i					
Setup						]						
Other	1						ł					

## **Landing Gear** General Pressure/Forced Bend Grain Ovalized Bending Temperature/Cure BOM/Route Over/Under tolerance Centre Not Concentric to O/S Hardware Part Incorrect Weld Broken/Damaged Inspection Incomplete Cracks Part Lost/Missing Wrong Stock Pulled Crushed/Crimped. Instructions Incomplete/Unclear Burrs Part Moved Maintenance Cuffs Contamination Positioned Wrong Mislabeled Heat Treat Countersink Other Misread Power Loss/Surge Inspection Strip in Tube Cut Too Short Drill Holes Ripples in Bend Offset Out of Calibration Drawing Torque Waves in Extrusion Out of Sequence Turning Sequence Finish Folio Wave/Twist in Tube **Outside Dimensions**

**FAULT CATEGORY** 

Process
Supplier
Training
Unapproved

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

\*97168\*

Page 4

February-14-13	2:52:18 PM			97	וחמ	•			Page 4
Item ID: Revision ID: Item Name:	D2958 Window		·	Accept	*N900	04010	<b>n*</b> s	Setup Start Stop	*NS1* *NS2*
Start Date: Required Date: Reference:	2/14/13 : 2/28/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item I Customer:	D:			14(1)
Approvals:	Process Pla	n:	Date:	Tooling: SPC (Y/N):		ate:	R	Run Start Stop	*NR1* *NR2*
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool # Plan Code	Accept Qty		Reject Insp. Number Stamp
*1 QA* QC Quality Control		QC21- Final Inspection -  Memo	Work Order Release	0.00				13/4,	116 2)

Q10-01-13

											DQA:	Date:	
NCR:	Yes /	No				WORK ORDER NON-	COI	NFOR	MANCE / UPDATE		•		
										• .	QA Closed:	Date:	
Mark Ord						DISPOSITION			AGAINST	DE	PARTMENT/	PROCESS	
Work Orde	er					Rework	7		Skid-tube Crosstube	. [		Water Jet	Engineering
Part I	No.					Scrap	1	l .	Machining Small Fab	1—	Proc	d. Eng. Coor.	Quality
1 0101					<del></del>	Use-as-is	1		noforming Finishing	<b>—</b>	1	e/Packaging	Other
NCR I	No.					Work Order Update	1		Large Fab Composite			Supplier	
											•		· · · · · · · · · · · · · · · · · · ·
Root					1	ption of work order update	1	Initial	Action		Sign &		
Cause	D	ate	Step	Qty	•	or Non-conformance	Ch	nief Eng	Description		Date	Verification	QC Inspector
Doc/Data	Ш												
Equip/Tooling													i i
Operator													
Material									<u> </u>				
Setup	Ш												
Other													
Process	Ш		-	·									
Supplier	Щ												
Training	Н												
Unapproved						r		LT CATE	CORV				<u> </u>
l ameli	ng Gear					General	AUI	LICATE	GORT		<del></del>		
Latio		nding			Г	Bend		Grain			Ovalized		Pressure/Forced
	<del></del>	_	t Concer	ntric to		BOM/Route	-	Hardwa	ero.		Over/Under	tolerance	Temperature/Cure
	Cra		it concei	illic to	<sup>0/3</sup>  -	Broken/Damaged	-	4	ion Incomplete	-	Part Incorred	<u> </u>	Weld
	$\vdash$		Crimped.			Burrs	$\vdash$		ions Incomplete/Unclear	$\vdash$	Part Lost/Mi	<del> </del>	Wrong Stock Pulled
	Cuf		лапреи.		<u> </u> -	Contamination	$\vdash$	Mainte		$\vdash$	Part Moved		J 26 aa
	⊢	it Trea	t.		-	Countersink		Mislabe			Positioned V	Vrong	

Misread Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Other

Power Loss/Surge

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Order ID:

97168

Parent Item:

D2958

Parent Item Name:

Window

**Start Date: 2/14/13** 

Required Date: 2/28/13

Page 1

Start Qty: 4.00

Required Qty: 4.00

Comments:

IPP E: 01.09.25 Done by outside contract SM

IPP F: 07.06.26 Thermoform in house

DL

IPP G: 07.09.28 Rev E dwg EC verified by: DD IPP H: 08.11.24 Step 8 revised per w/o 41134 KJ Verified by: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MACRLICS.125		Purchased	No			100	sf	690.7445	2.58	10.863158			Jm13-4-
1/8" Polycast II Sheet				Logation		Los Otri	Lo	o Codo			<u></u>		<u> </u>
•				Location		Loc Oty	<u>1.0</u>	c Code					
				MAT019		347							
				123	704	33							
				123	949	71			123	949			
				124	559	243							
				ther		343.7445							
				123	895	343.7445							

DQA: Date: **WORK ORDER NON-CONFORMANCE / UPDATE** Yes / No NCR: QA Closed: Date: AGAINST DEPARTMENT/PROCESS DISPOSITION Work Order: Crosstube Water Jet Engineering Skid-tube Rework Prod. Eng. Coor. Quality Machining Small Fab Scrap Part No. Rec/Store/Packaging Other Thermoforming Finishing Use-as-is Large Fab Composite Supplier Work Order Update NCR No. Description of work order update Action Sign & Initial Root Verification QC Inspector Chief Eng Description Date or Non-conformance Step Qty Cause Date Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved **FAULT CATEGORY** 

Landing	Gear _	General	 _		•	 7
	Bending	Bend	Grain		Ovalized	Pressure/Forced
	Centre Not Concentric to O/S	BOM/Route	Hardware		Over/Under tolerance	Temperature/Cure
	Cracks	Broken/Damaged	Inspection Incomplete		Part Incorrect	Weld
	Crushed/Crimped.	Burrs	Instructions Incomplete/Unclear		Part Lost/Missing	Wrong Stock Pulled
	Cuffs	Contamination	Maintenance	L	Part Moved	
	Heat Treat	Countersink	Mislabeled		Positioned Wrong	 · =
	Inspection Strip in Tube	Cut Too Short	Misread	L	Power Loss/Surge	Other
	Ripples in Bend	Drill Holes	Offset			 
	Torque Waves in Extrusion	Drawing	Out of Calibration			
	Turning Sequence	Finish	Out of Sequence			 
	Wave/Twist in Tube	Folio	Outside Dimensions			

DART AEROSPACE LTD	Work Order:	97168
Description: Window	Part Number:	D2958
Inspection Dwa: D2958 Rev: E		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

Х	First Article	Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
16.20	+/-0.030	16.20"	i		7	Ikmob
22.70	+/-0.030	22.70"	_		T	
9.84	+/-0.030	9.844	-		٧	Produsoz
8.87	+/-0.030	8.87	_		V	
10.35	+/-0.030	10.35	_		V .	

Measured by:	Jm	Audited by:	Prototype Approval:	· N/A
Date:	13-4-8	Date: 13/04/18	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	08.11.27	New Issue	KJ/EC	M
 			7.71	- Carrier Carr

